

# LRN Results Messenger BioWatch Deployment

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# BioWatch Information Management

- Field data management
- Local laboratory data storage and management
- Public Health Information Network(PHIN) standard data exchange
- Public Health data analysis capacity



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# Laboratory Testing Transition

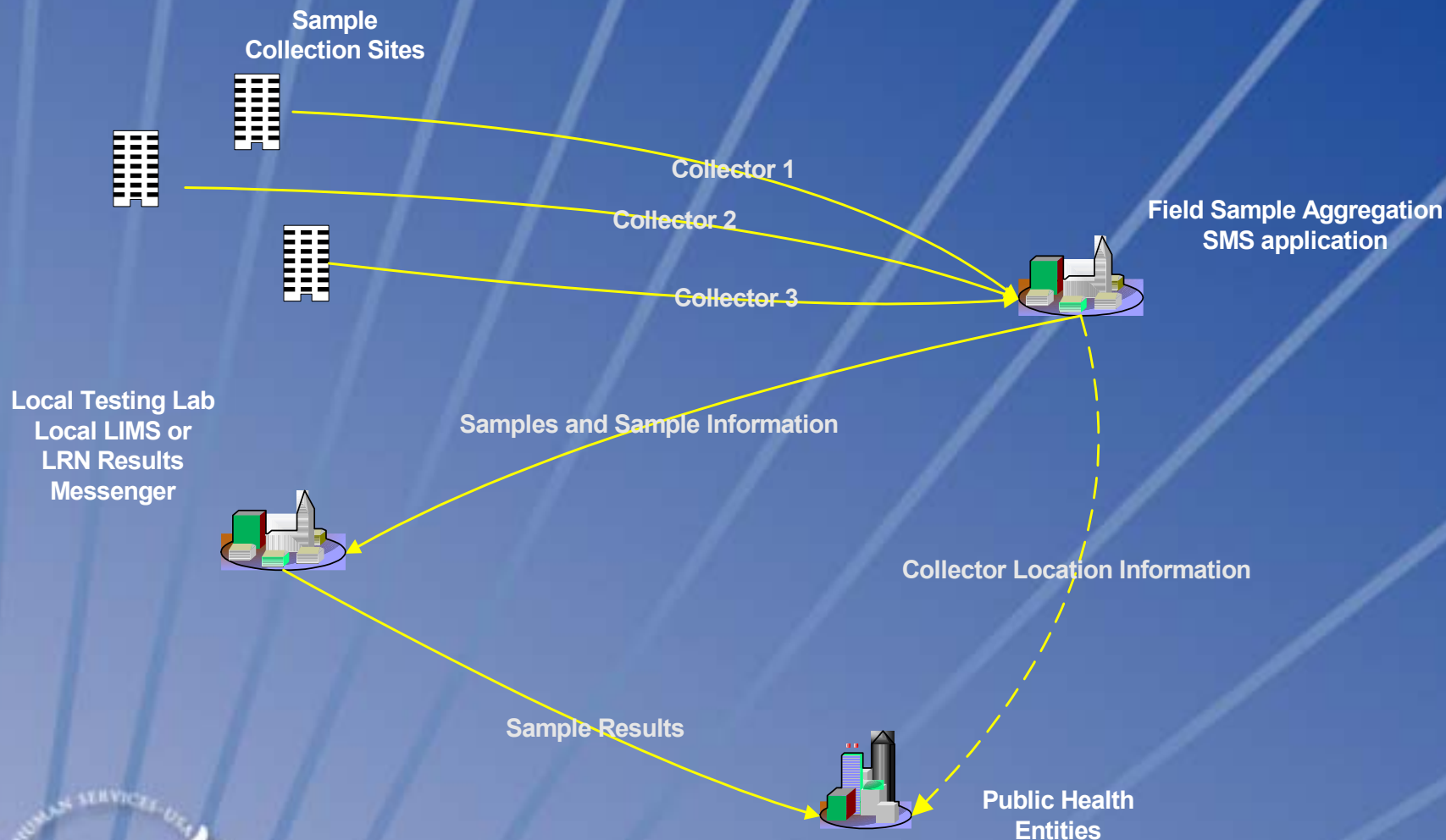
- Stage 1 – Field team will Federal Express filters holders to LLNL central processing lab
- Stage 2 – New BioWatch LRN lab aseptically removes filter and sends to LLNL processing lab
- Stage 3 – Fully functional BioWatch LRN lab performs complete processing and testing of filter samples and returns filter holder



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# BioWatch Sample/Result Information Flow



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# Phase I BioWatch Secure Data Exchange

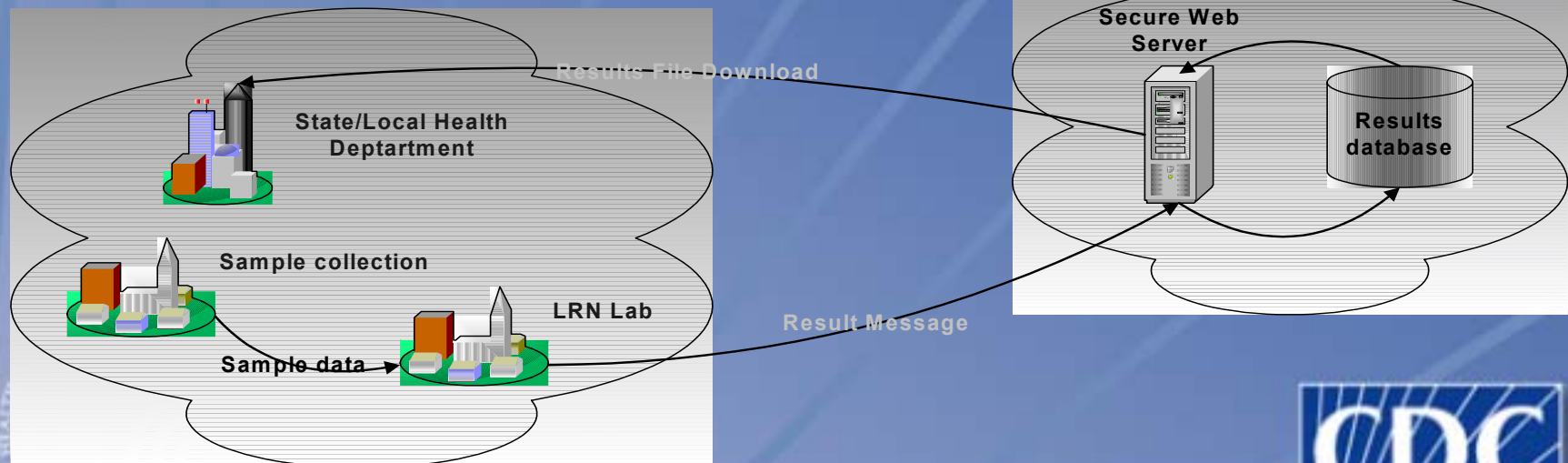
Laboratory enters specimen information or imports from SMS into LRN Results Messenger

Result data entered into LRN Results Messenger

Laboratory chooses records and receivers and drops in message queue

Laboratory initiates message send to CDC repository

Receiving entity retrieves data from CDC repository via secure web page with query interface





# Phase II Routeable Secure Data Exchange

Laboratory enters data into LRN LIMS or CDC provided LRN Results messenger application

Message created and dropped in local transport queue

Depending on sender and receiver capacity results routed directly to receiver

Laboratories with existing LIMS can create message and place in message system queue for transport



# Information Automation and Linkage

- Import of field sampling data into laboratory databases
- Early binding of information from the field for increased downstream data quality
- Linkage of collector and filter data with assays and results
- Linkage of collector location data with results for Public Health response
- Aggregation of information for analysis by authorized personnel



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# LRN Results Messenger

- Local application supporting storage of:
  - ◆ Subjects (Human/non-human and environmental)
  - ◆ Samples/specimens
  - ◆ Assays
  - ◆ Results
- Local data storage
- Clinical and environmental sample support
- Standard terminology support with update capacity
- Standard message creation
- Standard message transport
- User determines when and to whom specific records will be sent



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# Sampling Information

- Sensor ID
- Location (text)
- Sample ID
- Sample start and end times
- Sample collection duration
- Comments



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# Assay/Result Information

- Biowatch Screen
  - ◆ Positive/Negative for each signature
  - ◆ Numeric result value for positives
- Verification Panel
  - ◆ Linked to positive screen result
  - ◆ Positive/Negative for each primer/probe set
  - ◆ Numeric result value for positives
- Organism growth and Isolation
  - ◆ Appropriate assay and result information as specified by LRN for specific agents



# Deployment Update

- First deployment April 15
- 18 labs deployed by May 16
- Currently 4 labs sending production results



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# Subject Entry Screen

LRN Result Messenger

File Search Subjects Send Messages Setup Help

Location Specimen Info Ordered Test Test Results

Facility Type

Bio-Watch  
General Building  
Mall  
Warehouse  
Private Residence

\* Subject ID 112-090

City Code ATL

Grouping Information

Correspondence to Other Sensors

Location

BT Event

Save Delete



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# Sample/Specimen Entry Screen

**LRN Result Messenger**

File Search Subjects Send Messages Setup Help

Location	Specimen Info	Ordered Test	Test Results
* Specimen ID	112-30001	* Type	Air Sample
Specimen Parent ID			
External Specimen ID			
Description		Sample Start	3 /12/2003 12:30:58 PM
Specimen Quality		Sample End	3 /13/2003 1:30:00 PM
Specimen Amount		Collected	3 /13/2003 1:30:00 PM
Collection Method	Environmental, Plate	Received	3 /13/2003 4:00:00 PM
Collection Site		Container Type	
Location of Sample		Number of Containers	0
Duration of Sample	0	Shipping Label Information	
Container ID			
Container Parent ID			
Specimen Additives			
Specimen Role			
Specimen Condition			
Handling Code			
Specimen Risk Code	Biohazard		
<input type="button" value="Save Specimen"/> <input type="button" value="Delete Specimen"/> <input type="button" value="New Specimen"/>			
SpecimenID	SpecimenParentID	SpecimenType	SpecimenSource
<input checked="" type="checkbox"/> 112-30001		AIRS - Air Sample	



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# Ordered Test Entry Screen

LRN Result Messenger

File Search Subjects Send Messages Setup Help

Location Specimen Info Ordered Test Test Results

Specimen Id	Parent Id	Type
<input checked="" type="checkbox"/> 112-30001		Air Sample

Specimen ID: 112-30001

Specimen Parent ID:

Placer Order Number:

\* Filler Order Number: 1233

Parent Number:

\* Order Date: 3 / 23 / 2003

\* Order Time: 12:08:21 PM

Lab Tech:

\* Reason For Study: Bio-Watch

\* Suspect Agent: Bio Watch

\* Test Code: Biowatch Screen Panel 1

Reason for Study Description:

Order Notes:

Save Order Delete Order New Order

Placer Order Number	Filler Order Number	Specimen ID	Test Code
<input checked="" type="checkbox"/>	1233	112-30001	Biowatch Screen Pan...



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# Results Entry Screen

LRN Result Messenger

File Search Subjects Send Messages Setup Help

Location Specimen Info Ordered Test Test Results

Orders

PlacerOrderNumber	FillerOrderNumber	SpecimenId	TestCode
<input type="checkbox"/>	1233	112-30001	BWSCRN1 - Biowatch ...

\* Method Code  
BW Anthrax Initial Screening PCR Test

Abnormal Flag

\* Result Status  
Final results; results stored and verified. Can only be changed with a corrected result.

\* Observation Date ☒ 3 /23/2003 @ ☒ 12:08:52 PM

Equipment Used

Filler Order Number 1233 Specimen ID 112-30001

Result Code  
Negative

Result Value

Save Result Delete Result New Result

FillerOrderNumber	Specimen ID	Method Code
<input type="checkbox"/> 1233	112-30001	LRN-BA1 - BW Anthrax Initial S
<input type="checkbox"/> 1233	112-30001	LRN-MP3 - BW Burkholderia In
<input type="checkbox"/> 1233	112-30001	LRN-Bru3 - BW Brucella Initial S
<input type="checkbox"/> 1233	112-30001	LRN-ET3 - BW E. coli Initial S

Subject Test Report Environmental Test Report



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# Message Send Screen

LRN Result Messenger

File Search Subjects Send Messages Setup Help

### Send Messages

Sending Facility:  Date: 3/23/2003 12:25:57 PM

Receiving Facility

Name

- Nevada
- New Hampshire
- New Mexico
- New York
- New York City

Select All

Name

- New Jersey

Select All

->

<-

Messages Ready to Send

Subject Id	Specimen Id	Placer Order Number	Observation Identifier
112-090	112-30001		LRN-YPTM9 - BW Y. pes...
233-90-0909	112-30003		185-9 - CIPROFLOXACIN...
233-90-0909	112-30004		LRN-BA1 - Bacillus anthr...
233-90-0909	112-30005		
334-075	112-30040		LRN-Bru3 - BW Brucella l...
334-075	112-30041		LRN-BA1 - BW Anthrax l...
334-075	112-30041		LRN-BA1 - Bacillus anthr...
3455000	112-30044		
PSU-116	100-10020		LRN-BA1 - BW Anthrax l...
PSU-116	100-10020		

Send Messages Cancel

FillerOrderNumber	Specimen ID	Method Code
<input type="checkbox"/> 1233	112-30001	LRN-BA1 - BW Anthrax Initial S
<input type="checkbox"/> 1233	112-30001	LRN-MP3 - BW Burkholderia In
<input type="checkbox"/> 1233	112-30001	LRN-Bru3 - BW Brucella Initial S
<input type="checkbox"/> 1233	112-30001	LRN-ET3 - BW E. coli Initial S

Subject Test Report Environmental Test Report





# Web Viewer Screen

**Public Health Messaging: Error - Microsoft Internet Explorer**

File Edit View Favorites Tools Help

Back Forward Stop Reload Home Search Favorites Media Print Mail News RSS Feeds


Address <http://wops-trw-avm321.ops.cdc.gov:8081/messages/login> Go Links >>

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**LRN Result Viewer**

Laboratory Response Network  
logout | CDC Home Page  
Login: lv [Local Viewer] Org: HI

**Filter Lab Results Here**

Subject ID  Reason For Study -- select --  
Sender Specimen ID  Reporting LRN Name -- select --  
Specimen ID  Go 

**Records shown here**

Patient		Location						
Subject ID	Name ▲	Specimen ID	Parent ID	External ID	Order Date	Observation Date	BT Event ID	LRN Name
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	String	String	?unresolved?	String		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	new specimen id		?unresolved?	189912301200-0500		BT event	Hawaii DOH
subject ID	last	specimen id	parent id	?unresolved?	189912301200-0500		BT event	Hawaii DOH
subject ID	last	specimen id	parent id	?unresolved?	189912301200-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject ID	last	specimen id	parent id	?unresolved?	189912301200-0500		BT event	Hawaii DOH
subject id	Mall	String	String	?unresolved?	String		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
Subject ID	General Building	Specimen ID	Parent ID	?unresolved?	200302120203-0500		BT Event ID	Hawaii DOH
subject id	Mall	new specimen id		?unresolved?	189912301200-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject id	Mall	specimen ID	parent id	?unresolved?	200302130212-0500		BT event	Hawaii DOH
subject ID	last	specimen id	parent id	?unresolved?	189912301200-0500		BT event	Hawaii DOH

Previous 1 2 3 Next

Internet

# Questions?



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